THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT $5 PER ANNUM, IN ADVANCE

No. 24. BALTIMORE, OCTOBER 14, 1834. Vol. I

☞ This publication is the *successor* of the late

AMERICAN FARMER,

(which is discontinued,) and is published at the same office, at five dollars per year, payable in advance.

☞ When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

American Farmer Establishment.

BALTIMORE: TUESDAY, OCTOBER 14, 1834.

☞ FLOWERS.—We invite attention to the fall exhibition of the Horticultural Society of Maryland which opens this day as announced below. A fine display of flowers especially of the splendid DAHLIA is anticipated. The society richly merits the attention and patronage of the public, and we cannot doubt that it will receive them. Whoever neglects to visit the rooms, we predict will regret it afterwards.

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HORTICULTURAL SOCIETY OF MARYLAND—The Committee of Arrangement of the Horticultural Society, announce to the public that an exhibition of Flowers, &c. will take place at the Assembly Rooms, Holliday street, on Tuesday and Wednesday the 14th and 15th of October.

The Exhibition will consist of the Fall Garden flowers, amongst them the beautiful Dahlias, varieties of Roses, &c. with green house Plants, Fruits and Vegetables. Owing to the lateness of the season, and the risk of removing large plants, it is thought prudent not to give so extensive an exhibition as the one which occurred last spring.

Those who wish to contribute to the beauty and interest of the exhibition are informed, that whatever specimens of cultivation they may send, will be taken in charge by the Committee of Arrangement, who will attend at the room on the day previous. To prevent any mistakes, a full list of the articles sent by each individual is respectfully requested.

The Committee take this occasion to state, that so far the efforts of the society have been attended with the happiest effects—they have induced a praiseworthy and successful competition among the gardeners, which must result in a public benefit.

The Exhibition will open at 11 o'clock, A. M. and continue until 10 P. M. At 6 o'clock, the doors will be closed for a short time, to illuminate the rooms for the evening.

Admittance 12½ cents. Free admission to a member and one lady.

By order of the Committee of Arrangement,
T. EDMONDSON, Jr. Chairman.

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There was a fall of snow last week in the western part of New-York, and in some places ice of considerable thickness.

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KNOWLEDGE FOR FARMERS.—We commence to-day, the publication of a most excellent article on a proper course of instruction for farmers' sons. Although written in Europe, it is one of those embodyings of universal truth that are in place in *all* countries, and in season at all times. These observations will as naturally suggest themselves to every reader, as to the writer of this; but our object in taking up the pen at this moment, was to observe that in the absence of such schools as are here recommended, the best substitute that can be expected in our own country at present, is a dissemination of the knowledge here described, by means of the printing press, in the form of agricultural papers combined with a chemical laboratory, and museum of specimens in Botany, Entomology, Geology, &c. If a course of agricultural lectures could be added for the benefit of those young farmers who live adjacent, and those lectures and experiments be published in the paper for the benefit of more distant subscribers, the system would be almost complete. And why cannot such an enterprize be accomplished? Alas, the answer meets us at the threshhold—*for want of patronage*. The requisite talents cannot be commanded, nor the necessary investments made, without adequate funds, and these can scarcely be collected even to defray the expenses of this poor sheet, to say nothing of a suitable teacher, and the necessary apparatus for conducting a course of experiments and lectures. It would be the acme of our ambition to be the founder and conducter of such an establishment—we would rather be that, than any other description of useful citizen that we can think of. We *are* striving for just such an establishment, including also experimental ground, and collections of the best domestic animals, but really, we find it up-hill work, and are sometimes quite discouraged. Indeed, how can it be otherwise when we see a play actor making the tour of the United States, pocketing his fifty, seventy-five, or hundred thousand dollars in a year or two, as has been repeatedly done, and in some instances by persons of any thing but good character or talents—when we see a prophet or a miracle-maker, no matter how absurd his pretensions, command the purses of the thousand to his own advantage; and when we see a whole community freely disgorging the shiners to see not one but numerous idle fellows, make their aerial trips and tumbles at the iminent risk of their own *in*valuable necks—when we see these things and reflect how difficult it is to induce the same community to patronize establishments calculated in the highest degree to benefit the very primary interests of mankind, the cultivation of the earth, and of the human mind—we confess we feel somewhat discouraged. Sometimes we are inclined to ask for collections in the churches; for benefits at the theatres, and for fairs by the ladies; but then we verily believe we should be unsuccessful at all these points, and therefore conclude, since we are sure we are right, to "go ahead."

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AGRICULTURAL FAIR.—Since our last, we have conversed with several more of our neighboring farmers, all of whom promise to contribute whatever they can to the approaching fair. We know of some excellent machines that are to be exhibited *in operation*. We anticipate a decided popularity for these autumnal fairs, arising from their obvious utility. By the last New York Farmer we observe, that a similar exhibition and private and public sale of agricultural products is to be held near that city, on the 23d inst. Success say we to such enterprizes. We must not omit to mention particularly that some excellent cattle of the pure Improved Durham Short Horn and Devon breeds, and some fine Bakewell rams will be offered for sale at *our* fair, and that the strongest disposition exists on the part of owners to effect sales even at very reduced prices; let farmers who desire *improvement* look to it.

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WOOL—There is a brisk demand for this article at present in this market—see price current. We would advise our friends who have not yet sold, to avail themselves of this opportunity.

THE FARMER.

Agricultural Chemistry—No. 8.—(Concluded from page 179.)

To the Editor of the Farmer and Gardener:—

Newly burnt, or unslacked lime should not be applied as a manure to land, unless it abounds with a quantity of hard unfermentable vegetable matter; in such a case, Sir H. Davy says of lime when mixed with moist fibrous vegetable matter, there is a strong action between the two substances; and they form a kind of compost, of which a part is soluble in water. Thus lime renders matter which was comparatively inert, nutritive; and as charcoal and oxygen abound in vegetable matter, the lime is at the same time converted into carbonate of lime.

We here see the first operation of quicklime is to decompose vegetable matter; and consequently if applied to a growing crop, in land that does not abound with inert vegetable matter, the lime will prey upon the crop of vegetables, which, it is intended, it should nourish.

Sir H. Davy says, it converts moist vegetable matter into a compost; but he does not give us the *mode of operation* in which this effect is produced; we may come at an understanding of this operation, if we examine what are the constituents of the mass of lime, and vegetables on which it is intended to act—we have seen that the former is composed of a metallic base, called calcium, and oxygen, forming lime; and that this compound attracts, with considerable force, carbonic acid gas from the atmosphere, and from surrounding objects. We have seen likewise, in the vegetable matter exposed to its action, oxygen, hydrogen and carbon, in a state of union, forming the vegetable fibres. If any substance be presented to this compound, having a stronger attraction for any one ingredient of the composition, it must leave its union, and form a new composition; which is the case when lime is presented to moistened vegetable matter. By its attraction for carbon it dissolves the union of parts in the vegetable, and attracts the carbon, throwing out the oxygen and hydrogen—these two uniting form water, and we know that lime absorbs water with great avidity. In this process there is prepared a compost containing all the constituent principles of vegetables, in a soluble state; fit to be absorbed by the roots of plants. Fresh burnt lime, in its first effects, decomposes animal matter, and accelerates the capacity of such matter, to become the food of plants. But, in this process, the lime combines with carbon, and becomes *mild* lime, or carbonate of lime.

When animal or vegetable remains are destitute of fibrous matter, so as not to require a powerful solvent, or when their bulk is not in too great a proportion, or their tendency to putrescency excessive or noxious, the application of quicklime is an unnecessary reduction of their strength.

In turning under a crop of green clover, I presume the application of quicklime would not be serviceable; as the delicate texture of the clover stalk would not stand in need of being accelerated in its course of decomposition, but would give out its gas as fast as the roots of the growing vegetables could consume it; which should be the point aimed at. On the contrary, in ploughing down a large crop of old field sedge, it will be found but partially decomposed at the end of nine or twelve months after having been ploughed under; and in this instance a coat of quicklime would have accelerated the decomposition, and reduced its hard fibres to a state of solubility, in time for the crop to have been benefitted by its dissolution.

Mild lime moistened with sea water produces more alkali (soda) than when pure water is used; and is said in some cases to have produced more benefit as a manure. The metallic base of lime, or calcium, and oxygen have a tendency to unite in but one known proportion; that which forms lime; and when carbonic acid gas is united to this, in one certain proportion, (about 43 per cent.) the compound will remain exposed to the atmosphere without any tendency to decomposition, as we see in the quarry. Unburnt powder limestone has no solvent action upon animal or vegetable substance, and has no tendency to form soluble matter.

Many people labour under a gross mistake who suppose because they possess limestone land, they have no need of using lime as a manure; not understanding that unburnt limestone, even if powdered has no other action as a manure, than common sand. It may be rather more absorbient and more retentive of moisture than silex; but in decomposing vegetable manure it is powerless.

There is no description of lands more benefitted by the application of lime, as a manure, generally, than that from which the limestone is dug. There is frequently an uncombined acid in the earth, which is always unfriendly to vegetation; and, which is said to be indicated by the production of the common woodsorrel; this may be seen in limestone land perhaps, more frequently than in any other description of soil, and in that case, the application of mild lime is always a proper remedy.

The oxalic acid which exists in the earth in such places has been discovered by chemists to have a stronger affinity for lime than for any other of the bases, and is used as a test to discover lime when in combination with other substances. This acid unites to the lime, and forms an oxalate of lime; which is found to exist in the roots of many plants; as the onion, gentiana, rubia, rheum, scilla and many others. It is also found in the bark of the berberry, cinnamon, and many others, and in many of the acid fruits, as currants, cherries, &c. Although the oxalate of lime is said to be insoluble, yet by some means it finds its way into the substance of many plants and fruits. How does it get there? by absorption by the roots, or by composition from its elements, within the plant? I will leave this question for others to decide; but will unhesitatingly say, that if the excess of this acid be neutralized by lime, or potash, the farmer will find his land much improved: and find the natural grasses taking the place of sorrel.

E. A.

[For the Farmer and Gardener.]

Educated Farmers—A moment's reflection must convince any one, that a well educated farmer must be a man of almost universal science. The animal, vegetable and mineral kingdoms are constantly before him, and furnish the materials for which, with which and upon which he is daily employed. Unless he is acquainted with the laws of animal and vegetable life, he will be liable at all times to attempt a course counter to those laws, which must necessarily end in defeat.

The operations of the farmer are little else than one continued series of chemical experiments. In every step he takes in the preparation of his soil, or in forming manures, he must bring chemical science to his aid, or fail of success. In erecting fences, buildings, utensils, &c., the farmer must not only consult the laws of chemistry, but of Natural Philosophy, Botany and Mineralogy.

The atmosphere is the farmer's constant agent in preparing his soils, in making his hay, in preserving his roots and other vegetables, while, on the other hand, in many of his operations, his whole success depends upon his counteracting its influence. It must be evident, of course, that the nature, the properties and the uses of the atmosphere, ought to be as familiar to the farmer, as the common furniture upon his table.

Every farming utensil must be formed according to the principles of mechanical philosophy, or loss of strength be suffered in its use: and how common is it, for a plough, or hoe, or carriage, or some other implement of the farmer, to require twice as much strength in its use, or perform one half the work, that it would do under a little different form?

Nor is it sufficient for the farmer to be familiar with the principles of nature even if they embrace the circle of universal science. The *practice* is not less necessary—it is absolutely indispensable, and can be learned, only by a long course of discipline. As well might a man who knew only the theory of angles, or the principles on which the joints of cabinet work must come together, be expected to make a well finished secretary or bureau, or a person who only understood the theory of sounds, be expected to make a good musician, and a skilful player of the organ, piano, violin, flute and all other instruments, as a man who only understood the theory of agriculture, let it be ever so complete, be expected to make a good practical farmer. After all the knowledge it is possible to acquire of Botany, Entimology, Geology, Chemistry, Natural Philosophy, the laws of animal and vegetable life, and the principles of inanimate nature, unless a farmer can actually wield the axe, the hoe, the plough and other farming instruments, together with much practical knowledge with the daily arrangement and management of business, he must be subject to great losses, and nine times out of ten to entire failure.

Notwithstanding the knowledge and experience of a well educated farmer are so various and so extensive, they can all be acquired with the greatest ease, by every farmer in the United States.

The *winter evenings* of one season spent in such a lyceum as every farmer may have, are sufficient to make a good beginning in the cause of science, which a few seasons must crown with entire success.

Such being the fact, what better proposal can

be made to farmers, and to every farmer in every state in the Union, than to unite with a few of his neighbors in some plan for mutual improvement, during the evenings of winter and autumn now at hand? And where can arrangements for such an object be more successfully made, than at the *simultaneous conventions* proposed on the fifth of November next, in all the eleven hundred counties in the Union, for the promotion of schools and the diffusion of knowledge. In every case a FARMER'S LYCEUM, of the best character might be formed, not only for the benefit of themselves, but of the whole community.

AGRICOLA.

From the (Edinburg) Quarterly Journal of Agriculture.

On providing schools for the instruction of farmers' sons in the physical sciences.—By William Hawkins.

It is the object of this paper to recommend the establishment of schools throughout the kingdom, for teaching farmers' sons the elements of the sciences; such, for example, as Chemistry, Vegetable Physiology and Mechanics. And, in the progress of it, I shall endeavor to show, first, the usefulness of such knowledge, and then the method by which it may be generally diffused; and I think I can make out both of these points to the satisfaction of any body who will take the trouble of attending.

To prove the importance of agriculture to a community, seems very like demonstrating the advantage of having clothes to wear and food to eat. That it is indeed "the first and greatest concern of every nation, and the foundation of its prosperity in every other matter," is a truth so universally acknowledged, that it has almost obtained the currency of a proverb. But in spite of this general recognition of its supremacy, a due proportion of human ingenuity has never been directed towards the investigation of its principles. The mechanical arts have been carried to a high degree of perfection by the labor and genius of such men as Wall and Arkwright, and in every town we see rising round us institutions for the education of mechanics. But what of a similar nature, is being done for agriculture? We may look in vain for the institutions which should diffuse among practical farmers even that knowledge which already exists. The principles of agriculture may have been exploded by the genius of Davy, and its practice reformed by the labours of Young, but discoveries and experiments can be useful only as far as they are known. Mr. Tennant has shown how the farmers in the neighborhood of Doncaster might have told that there was magnesia amongst their limestone, and that consequently it would be injurious to the soil; that is to say, he knew these things himself, but of what use were his experiments to the Doncaster farmers, who never heard of them, nor perhaps of him either? It is said that vaccination was known in a district in Gloucestershire before the time of Jenner, but how did that avail those who were dying of the small pox in London? The barrenness of the hills in Westmoreland will be remedied, when, not the chemists and vegetable physiologists of London or Paris, but the tenants and occupiers of those very hills shall understand its causes and its cure. At present, the means of diffusing scientific knowledge amongst them is extremely limited, and the general establishment of agricultural schools would have for its object the conveyance of knowledge to where it is wanted, in a manner perfectly analogous to the ingenious contrivances by which water is conveyed from the reservoir at Islington, to the houses and inhabitants of London.

But, it may be asked, shall chemists and recluse philosophers presume to teach farmers how to farm? Is it not to be supposed, that men who have passed their whole lives in that pursuit, understand it better than any body else? Most unquestionably they do. Sir Humphrey Davy would, most likely, have made a bad farmer. There are a thousand important considerations connected with farming, of which he was probably ignorant; but still he ascertained, in a manner clearer than he had done before, the principles which regulate the application of quicklime as a manure. And it does so happen, that many of our useful discoveries have been owing to men not connected in practice to the art to which their discoveries were applicable. Arkwright was a barber, Dolland was a silk weaver. The compass, the chronometer, and the weather glass, three of the greatest helps to navigation, were all discovered by landsmen. Gunpowder is supposed to have been first discovered by a monk.

Put into another shape, the possibility of progressive improvement in agriculture may be a little more palatable. The farmers in France obtain from a soil at least as fertile as ours, no more than 18 bushels of wheat per acre on an average. Is this because they have less experience or less skill and knowledge than ourselves? And if one of us should undertake the thankless task of pointing out to them their errors, he might count at being laughed at for his pains,—for presuming to know better how to farm their lands than they who have been at it for generations.

Among the many helps towards a more perfect knowledge of external nature which the mind of man has discovered in these latter days, the first place, is due, by general consent, to

CHEMISTRY.

The efforts of the farmers are chiefly directed towards making the land more fertile; and the first step in this process is to inquire in what particulars less fertile land may differ from that which is more so; to compare the two together; to find out the ingredients of each, and the proportions in which they are mixed. The knowledge how to do this is Chemistry. Arguments upon particular cases are commonly more intelligible than abstract reasoning; and it may therefore be advisable to select an instance. The following is from Sir Humphrey Davy's Agricultural Chemistry.

He says, "A soil of good apparent texture from Lincolnshire was put into my hands by Sir Joseph Banks, as remarkable for sterility. On examining it, I found that it contained sulphate of iron, and I offered the obvious remedy of top-dressing with lime, which converts the sulphate into a manure."

Now, what is the process by which, as we may suppose, Sir Humphrey Davy arrived at the knowledge that the difference between this barren soil and other soils of the same appearance, consisted in its containing sulphate of iron. By previous instruction, he had made himself acquainted with soils in general, and with their most usual ingredients, and he proceeded to test for them, one after another, until he threw in the regent which forced the latent mischief to show itself.

For the sake of perspicuity, let us suppose, that of the many substances in nature, which may not improbably exist in a soil (and the presence of either of which would lessen its fertility) the four following are supposed to be the most probable:

1. An Alkali.
2. An Acid.
3. Magnesia.
4. Sulphate of Iron.

Any vegetable blue, such as the infusion of violets, would be a test for the first two substances. The infusion would turn green if an alkali, and red if an acid were present. The presence of magnesia would be indicated by its slighlty effervescing when plunged into an acid, and by its rendering diluted nitric acid milky. If by these applications it should be decided that neither of the first three ingredients existed in the soil, the next point would be to inquire as to sulphate of iron. It might be difficult, it might perhaps be impossible, for the eye or the hand to perceive it; but, if it existed, a few drops of the infusion of galls, poured into a wine glass containing a small portion of the earth dissolved in water, would cause the mixture to turn as black as ink, and it would in fact be ink, for sulphate of iron and galls are the materials of which ink is commonly made. And all this is very easily done; it might be performed by a child. All that is required is, that a few ounces of the soil should be brought home, and, at each experiment, a teaspoonful of it put into a wine glass, and a table spoonful of the test liquid poured upon it.

By means as simple as these, a man may tell what ingredients go to the composition of any soil that he may wish to examine; but it requires a little more trouble to ascertain the proportions in which these ingredients exist; and the barrenness of a soil may be owing to the excess or deficiency of an ingredient, not less than to its absence or presence. A chemical analysis of soil, however easy to those who have been regularly taught to conduct it, would scarcely be performed by those who had not; and few men can be brought to give these things sufficient attention after their school days are over; for which reason it is sufficiently desirable to have them taught in youth,—

"In the morning of our days, when the senses are unworn and tender, and the gloss of novelty is fresh on all the objects which surround us."

"The instruments required for the analysis of soils are few, and but little expensive. They are a balance capable of containing about a quarter of a pound of common soil, and capable of turning, when loaded, with a grain; a set of weights from a quarter of a pound troy to a grain; a wire sieve, sufficiently coarse to admit a mustard seed through its apertures; an argand lamp and stand; some glass bottles; Hessian crucibles; porcelain or queen's ware evaporating basins; a wagewood pestle and mortar; some filters, made of half a sheet of blotting paper, folded so as to contain a pint of liquid, and greased at the edges; a bone

knife, and an apparatus for collecting and measuring æriform fluids."—*Agricultural Chemistry*, 146.

And a farmer need not possess all these things himself. If the proposed schools were established in every district, the apparatus, with the necessary regents would be kept at each school, and might be used occasionally by any body; and all he wants for most purposes would be a few acid and vegetable infusions,—a test box, in short,—with the weights, sieves, lamps and earthenware used for domestic purposes. And many very important results might be come at by these simple methods.

What can be easier to observe, whether an infusion of any kind turns vegetable blues red or not? But if it does, the infusion contains an acid, and therefore lime, or an alkaline substance, is a good dressing for it. When a piece of paper moistened with muriatic acid, and held over the steam arising from a dunghill, gives out dense fumes, it is a certain proof that the decomposition is going too far, for it indicates that volatile alkali is disengaged.

It requires very little labor to observe, whether a soil effervesces by the action of an acid, or whether it burns when heated, or what weight is lost by the heat; and yet these simple indications may convey most valuable information concerning the ingredients of the soil.

If the whole case rested upon these instances, there would be little room to fear refutation, for they surely prove the applicability of Chemistry to agriculture—they prove that many of the causes of sterility, and consequently the appropriate remedies, may be discovered by its aid.

Not that all these instances would be applicable to all soils, but some would apply to one soil and some to another, and happy would he be whose land was so good that he could find no fault in it. And it may be repeated over and over again, in favor of chemical analysis, that all barrenness, as well as every other quality of a soil, must of necessity be owing either to the presence or absence—the excess or deficiency—of some element.

(To be continued.)

From the Northampton (Mass.) Gazette.

Apples.—There has not been such a scarcity of apples in this part of the country since the year 1794. The cold weather in May destroyed almost all the fruit on the hills and in the valleys. Some persons have a few apples and will make a small quantity of cider, but the greater part have hardly enough for apple pies, and will be destitute of cider, apple sauce, and winter apples. So far as we have observed, there are more apples on the trees in the meadows and low lands near Connecticut river, than any where else. We have heard old people make the same remark in regard to apples in 1794.

It is said of Lord Bacon that when he rode in the country, he rode with his head uncovered, that he might, as he said, "feel the spirit of the Universe upon him."

THE BREEDER & MANAGER

[From the American Turf Register.]

On Bots in Horses.

Mr. Editor: *Balto., Sept.* 4, 1834.

It is almost an universal opinion that bots are more "destructive to horses than any disease to which they are subject." And you having lately put into my hands No. 1, vol. 5, of the Turf Register, I was much pleased with the able and scientific essay on bots over the signature of S. of Glencairn. As in it he has given a correct history of the bot and its parent, the fly, I should not have troubled myself with writing this scrawl nor you subscribers with reading it, but to assist him in correcting a general error in opinion, and preventing the tortures to which so noble and useful an animal as the horse is, by having administered to him such noxious remedies as are often worse than the supposed disease. By what I shall here say I may be condemned as a heretic against common opinion, and particularly so by many who may be esteemed as possessing an extensive knowledge of the horse; but this does not deter me from doing what I believe to be justice to the public. If a man suppresses what his experience has proved to be true, because that truth is not orthodox, he in order to gain favor acts the part of a hypocrite, and in so doing is an enemy to truth and to the public; for it is by a knowledge of facts and the spreading of those facts that truth can predominate. With an extensive experience of thirty-five years bearing me through with the fact, I fearlessly combat the opprobrious term heretic and throw it back on those who possess the common opinion against truth.—It is becoming to show respect to common opinion, but when it is in error and that leads to error in practice, it is equally becoming in us to endeavor to correct such opinion in order that truth may prevail.

As regards the connection between man and horse, there are few opinions having in their tendency so much evil as that of bots being destructive. Therefore, against this I shall contend by taking four positions. And 1st.

If bots were as destructive as it is said they are, we should not see a horse raised to an age capable of doing work, for while they are yet colts, and in the breeder's possession, they are particularly liable while running in the field to the influence of the fly and its deposits.

2nd. The fact is as stated by your correspondent, that bots live on the chyle only.

3rd. The remedies made use of under the supposition of the disease being bots, are usually of the most exciting quality, which are in many cases destructive to the horse.

4th. All the interval remedies made use of on such occasions, are given in drenches, whereby numbers of horses are innocently and unknowingly killed.

My 1st position is a fact so self-evident that when taken into consideration it requires no illustration.

In support of my 2nd position I will add, that it is not because they are attached to the stomach by their tentacula that they of necessity live on the solids; for those hooks by which they are attached have nothing to do with taking in nourishment, the only use of those hooks is to keep them supported in their natural situation until they shall have arrived at maturity, and then to be thrown off with the fæces; for had they not this hold their bulk would cause them to be passed off before they could be matured. Their letting go that hold is not voluntary; they are I may say of necessity compelled to remain in that state their allotted time, in order that the design of nature should be perfected. When this time arrives, which is partially in the month of May, but more numerously in June, July and August, and again partially in September, they are in those months past off to enter on their chrysalis stage preparatory to a reproduction of the fly. 3rd. The disease to which the horse is most subject are spasms and inflammation of the intestines, and as either of them at times cause raging symptoms, such as laying down and rolling, rising up and looking to his side, pawing the ground with his front feet, and kicking his belly with his hind legs, in some cases he raises up his head and turns up his upper lip; all these are taken for symptoms of bots: we notice some persons who will turn out the inside of the upper lip, and because they can see small lumps (which are glands,) they say he has as many bots, and in this they are positive. On the presentation of the above symptoms the common practice is to give medicines of the most exciting quality; and should the disease be inflammation, what from such treatment can be expected but the horse's death? If it be spasm with no disposition to terminate in inflammation, the result will be favorable. In a communication of mine on thumps, in your August number, my treatment of inflamed bowels and of spasms are stated; which, if followed will in general be found to give satisfaction. 4th. Although the giving of drenches is so common, it is nevertheless a fact that numbers of horses are killed by the practice; and this may happen by the hands of the most experienced person, with this difference, that the experienced man will know the instant when the evil is produced; but it is more than probable that the inexperienced person will not know. To give a drench it is necessary to raise the horse's head at least so high as that his mouth shall be more than on a level with his throat; which position for the act of swallowing is unnatural, and being so there will be more or less difficulty in swallowing, by which a portion of the drench may as it often does pass into the trachea, (wind-pipe,) and induces a disposition to strangulation and coughing, and thus inflammation of the lungs is often produced and often terminates in death. To the above cause in the difficulty of swallowing is often added that of striking and squeezing the throat, which is much more likely to irritate and cause strangulation, than it is to make the horse swallow: to prove the truth of this assertion, let a person throw his head back, and while in that position slightly strike his throat; such an experiment will teach him the impropriety of doing or suffering it to be done to the horse. Seeing, as I have, the evil there is in drenching I have not for fifteen years or more given a drench: but all the medicine which I administer internally I put up in balls or powders.

If a ball is to be given, I recommend those who are not in the practice of giving them, to hold up the horse's head as when a drench is given, and

putting the ball into his mouth, push it far back about his teeth with a stick; holding up his head until he chews and swallows it. In giving a ball this way there is no risk of strangling, as by chewing he at one time prepares only a small portion for swallowing. The correctness of this practice will be fully proved on trial.

I always have, as I conceive justly, rejected the idea of bots killing horses, and if I shall not weary you and your readers' patience by too long an essay, I will now more fully illustrate the erroneousness of so common an opinion by the following facts:

Every horse that dies at the Veterinary College in London, is there opened before the pupils; while I was a student there, I never saw one opened which died of the bots, although I saw in some great numbers of them. And again, for many years on my first entering into practice, I made it a point to open every horse that died under my notice; since that time I have opened many, and all I have dissected and seen dissected would amount to many hundreds, and I never yet saw one that was killed by bots; but I have, when opening one horse, that was, while sick, said by all who saw him, except myself, that his disease was bots, been pointed to one of the natural openings of the stomach, as a hole that was eaten by them. I now forget whether it was the cardiac or pyloric orifice. This fact I have related to show how imperfect men may be, and at the same time believe themselves to be fully competent on opening a horse to discover his malady. Another similar case of imperfect knowledge I will relate. A horse which was afflicted with inflammation of his bowels, I was requested to attend; on my first visit, the owner, as is customary, must know what was his complaint; I told him it was inflammation of the bowels; to that he would not assent, but persisted in his opinion of its being bots, the horse died and was opened by the owner, who had much confidence in his own knowledge. The next time I saw him, he was in a rage against me for what he thought was in me a lack of professional skill, saying, "I told you that his complaint was bots;" and how do you know it, was my reply; his answer was, "he died and I opened him, and saw that the bots had eaten one part of the inside skin of the stomach:" I told him that he saw one part of the stomach very white, and the other, a darker color; "yes;" now, sir, you have displayed to me your ignorance, I replied, for the stomach in its most healthy state presents that difference.

I have in some cases stood by to see how in opening a horse, the examination would be conducted, and in one case the persons held up the omentum (which is the fine net-like membrane, covering the stomach) saying, see what a riddle the bots have made of the maw, see how they have eaten it. In this case I was strenuous to ascertain whether they believed they were then showing the stomach, and after fixing their attention to it, and their persisting that it was, I then to their disappointment pointed them to that organ. In this case, on first opening the abdomen, food was laying outside of the bowels; it having escaped through a small rupture of the stomach. There were not in this horse more bots than about half a dozen. The owner was present, and as we were returning, he told me, that if I had not been there, he should ever have believed that his horse died of the bots, but he was fully satisfied it was not so. The disease was inflamed bowels with rupture of the stomach.

I will relate one more case to which I was called, but before I saw the horse, a man told the owner, that if he would do what he would prescribe, his ears should be the forfeit, if in fifteen minutes it did not cure the horse. To hear a man thus speak, what owner would resist? For before my arrival, the man, with one of the owner's men, were sent to get the potion; while I was examining the horse, the owner related to me what had passed; on my asking what the medicine was, he answered, whiskey and indigo. I saw the disease was of such an inflammatory character, that the horse could not recover, and reflecting on the man's positive assertion, prudence dictated that I should say nothing, until the medicine was given; when this was done, I told the owner I had not given my opinion, but now I would, which was, that his disease was inflammation of the bowels, and that the medicine then given was in such a case poison. This being my opinion, and for suffering the medicine to be given, the owner was disposed to blame me, but on the positive assertion of the man, and knowing that I could not have cured him, I persisted in the correctness of my conduct. He was dead next morning. Numbers saw this horse in his sickness, and all except myself said his disease was bots.

On opening the abdomen, food was found squandered on the outside of the bowels, which caused the spectators (of whom there were about a dozen) more fully to believe it was the bots. On my looking for the stomach, and finding it in detached pieces, what was before with them belief, was now with them become fact; but on looking for bots and finding none, after having cut open the intestines their whole length, they were fully convinced of their error. The intestines and parts of the stomach were highly inflamed.—To account for the stomach bursting into rags, I believe theory is put at defiance, yet such was the fact. In this case there was an unusual quantity of water in the belly, the cause of which was explained by the owner, but which cause he had no knowledge of while the horse was sick. This person's rule was for each cart while at work to have a bucket for watering the horses at any time of the day: the weather was very warm, and when this horse stopped work for the day, the driver gave him three half bushel buckets of water, in as quick succession as he could draw them from the pump, and as the horse could drink them. In about fifteen minutes after drinking, the horse was taken with pain, which produced the most raging symptoms, such as pawing the ground, kicking his belly, looking at his sides, laying down and rolling; these symptoms continued in the greatest violence, until death put an end to his suffering. All the spectators said, if I had not been at the opening of the horse they would always have believed that bots had killed him. In detailing facts like the above cases, showing the absurdity of the vulgar opinion, I could fill more than two of your periodical numbers.

I will here ask the question, how a person who is neither acquainted with anatomy or pathology, can tell on opening one, or even four or five horses, (which are as many as any such person will open in his lifetime,) what part is right, or what is wrong? And again, as regards the destructiveness of bots, are not the prejudices of the community strongly operated on by the notions of former ages? and from this cause the mind being operated on while the horse is sick, with the firm belief of his disease being bots, that they on opening a horse must almost of necessity be deprived of seeing or examining for any other disease than those insects; for almost as sure as they open a horse, they ascribe his death to them.

Having been taught the anatomy and pathology of the horse, and for thirty-five years had an extensive practice, and having opened hundreds of dead horses, would it not be something most singular, that I should never have met with one that was killed by bots, if horses were as often destroyed by them, as common opinion represents.

It is my decided opinion that they never destroy life.

The following will, to many practitioners of human medicine, appear incredible. But it appears to me that there is very little analogy between inflamed bowels of the human subject, and of the horse. In him inflammation comes to a termination in much shorter time than in man. Several cases have come within my notice where horses to all appearance were enjoying the most perfect health, when in an hour, and even in some few cases, in a quarter of an hour, was dead, with inflammation so diffused, as not a viscera, either thoracic or abdominal, had escaped the disease. Such rapid termination of inflammation, I believe, is never found to be the case in man.

Blaine, than whom there is no better veterinary authority, ascribes this quick progress of inflammation, to the great portion of muscular coat which there is to the arterial system of the horse.

I have often met with rupture of the stomach and of the colon, without being able to find one bot in the horse.

With considerations for better treatment to the horse, than unnecessary tortures,

I remain, yours,

JOHN HASLAM, Veterinary Surgeon.

Exposure of animals to disease and accident.—A fine horse, belonging to a gentleman in the first ward, died on Sunday, having been seized suddenly and violently, on the preceding night, with every symptom of Asiatic cholera. The animal died with all the cramps and spasms which so often mark that disease.

Birds have been supposed to be exempt from the effects of lightning, because feathers are held to be nonconductors. Hence a feather bed has been the resort of many a timid person during a thunder storm. It seems, however, that their plumage is no protection to the feathered tribe against electricity. The Palmyra Sentinel states that three crows and a goose were recently killed in the town of Walworth by a stroke of lightning, and we noticed some weeks ago, in an eastern paper, that a large number of *blackbirds* were found dead, and that their bodies showed manifest evidence that they had been killed by the same electric fluid that shattered the tree under which they had sought shelter.—*N. Y. Com. Adv.*

THE GARDENER.

[From the National Intelligencer.]

MILDEW.—In looking over Loudon's Gardener's Magazine of 1833, I was pleased to find an abstract of a lecture on Mildew, delivered by Professor LINDLEY, before the London Horticultural Society, of which, as it may be interesting to some of your readers, I will endeavor to give the substance.

Mildew is often confounded with blight, honey dew, &c. but is a distinct substance, and peculiar to peculiar tribes of plants. It generally appears on the leaves or stems, in the form of *red*, *white*, *and black spots*, as a number of minute projections, or frosty incrustations, or a brownish powder, spreading more or less rapidly, till the plant is destroyed. Mildew is fungi of different kinds, and these are divided into three classes: 1st, those which grow or lie on the surface of leaves; 2d, those which are formed in the interior of the stem or leaf, and produce when ripe; and 3d, those which only attack the roots. All these seldom appear but in Autumn.

The first of these fungi injure the plant by preventing its respiration. One of the most common of the fungi, which attack the common cabbage, is the *Cylindrosporium concentricum*, and they have the appearance of small white patches or specks of frosty incrustation. The mildew which attacks rosebushes, and many other flowering shrubs, is a kind of Uredo, so called, from *Ura*, to burn or scorch; for it gives to the plant attacked the appearance of being scorched. The fungus called *Acrosporium*, *Monilioides*, resembles, when magnified, a string of beads, and consists of a number of globules which, when ripe, fall, take root, and form fresh strings, or necklaces. Sometimes tufts of these appear, fixed to stalks, and are then called *Aspergillus*, from their fancied resemblance to the brushes used for sprinkling holy water. The superficial mildew which infects the onion, and is fatal to that plant, is called *Botrytis*, or bunch of grapes. The bean and pea have a superficial mildew (*Uredo Fabæ*) which spreads along their leaves like white roots curiously interlaced.

The second class of fungi which spring from the interior of the leaves and stems, are the most fatal. They appear in a sort of bag or case, supposed to be formed of the cuticle of the affected leaf. These attack the oak, pine, and other forest trees; the genus is the *æcidium*. The *æcidium pine*, found on pine trees has, when magnified, the appearance of a number of nine-pins. When ripe it emits a bright orange coloured powder. A mildew of this kind attacks barley, and is very injurious. It is vulgarly called pepper brand. The *Uredo Segetum* or smut is destructive not only to barley, but to wheat and oats. It destroys the grain, which it converts into a kind of jelly, and attacks the leaves and stems. The *puccinia graminis* which attacks corn, is formed in the interior of the stock, and, when ripe, burst forth into clusters, like bunches of grapes, of a dark brown colour. The *ergot* on rye is a well known and destructive species of mildew. It grows out of a spike of grain, like a prolonged kernel; is long, horny, and cartilaginous. It originates in the centre of the stem. It affects maize, and various species of grass.

The principal fungi of the 3d class are two, which attack the roots of plants, and both resemble truffles. One of these (*Rhizoctonia Crocorum*) attacks crocuses. It is called by the French *Lamort du safran*, and soon destroys the whole crop. The other fungus (*Periola tomentosa*) is found on the potato, lucerne, &c. It turns the roots to a purplish hue. They are both propagated by spawn or fibres, which cling round the roots. All these fungi propagate rapidly, requiring only twenty-four hours to come to maturity. One mushroom will propagate 250,000,000. Plants, Dr. L. says, are generally most affected by superficial fungi after a long drought. *Red plants* are said to be more liable to mildew than any other. Mr. Bauer has found that steeping grains of corn in lime water, will cure, or at least, prevent the spread of the internal mildew. There appears, however, as yet, to be no cure for mildew in the roots, but by forming a deep trench round the infected plants, and cutting off all communication between them and the rest of the field. W.

[From the Intelligencer and Expositor.]

IMPROVEMENT OF SOIL.—If an enquiring mind will go into the woods, where the soil is what we term rich land, and view nature at work, in nature's own way, he will discover readily, that for a considerable depth, this rich soil is a composition of vegetable matter principally, more or less decomposed,—in common language well rotted. He will discover, that what he applies the name of soil to is composed, almost entirely, of the decayed leaves of the trees with weeds and grass, and rotten wood—perhaps the production of centuries. But on a nice examination of this rich soil, he will be compelled to conclude, from evidence before his senses, incontrovertible, that decayed LEAVES, form the principal part. If he wishes for conclusive corroborating testimony, he will heap up a mass of them in a pen, sprinkling the mass with lime, and he will find after the process of fermentation, and decomposition has done its office, that the product will, on application to poor soil, produce the finest vegetation, and prove to his senses that it contains the pabulum, or food of plants, in a high degree. By still going on with his experiment, he will find ultimately, that leaves when decomposed, with the aid of decomposing agents, produce an admirable assistant to vegetation, and by forming a mass of leaves, sprinkling the leaves as he forms the mass, with lime, and adding a small portion of rich moist earth amongst the vegetable matter, he will find, on applying it to the earth for the purpose of aiding vegetation, that he has got a pile of manure.

From this evidence before him he will readily conclude, if capable of the operation of common sense, that for the purpose of littering animals, and as an assistant, in forming a compost manure, leaves, especially if gathered while charged with their whole elementary principles, must be an admirable auxiliary, in the production of the dung-stead, and worthy of being most assiduously collected for that purpose.

Amongst weeds, or green vegetable substances, experiment has amply decided, that those which produced the most putrid, and nauseous effluvia, during fermentation, were found producing the most active effect, on the growing crop. This fact seems to settle, by positive proof, the correctness of the theory, of many plants feeding rapidly on gases, evolved during the process of fermentation, through the medium of their leaves. As it would be highly desirable, previous to laying down any plan for making manure, in the form of compost, to have some idea of the relative value of different ingredients, which present for that purpose, it may be proper to have some facts placed before us. Leaves piled up in a pen, with alternate thin strata of swamp mud, when partially decomposed are found a superior preparation for the Irish potatoe crop. Put around the roots of fruit trees, this compost has been found to produce a healthy and vigorous growth. Its operation has been much increased in its efficacy, by the addition of lime to the mass. The finest Irish potatoes that I have seen produced in a southern climate, were produced by the addition of this compost.

A pen was made with small rails, a stratum of leaves, trampled down to twelve inches in depth, a sprinkling of lime added, after sprinkling the leaves well with muddy water three or four inches of swamp mud was then added, and this course continued, until the pen was six feet in height. This compost was made up in the fall, on the first falling of the leaves, and applied to the potatoe crop in the spring. The effect on the following crop of CORN, was all that could be desired. A second pile was constructed with a stratum of leaves, two feet thick, sprinkled well with lime, previously, with muddy water—two carts came up, the one loaded with swamp mud, and the other with dung—from opposite sides the throwing on commenced, at equal pace, so as to mingle the two last well: on the layer of mud, and manure, being completed, say about four inches thick, another layer of leaves was added—sprinkled with water from a pond, then lime, mud and manure, and continued, until the pile was about six feet in height—a little earth was thrown on the top—I am satisfied the same volume of dung, spread over the same surface, would not have exceeded in production, either in the potatoe or corn crop, that followed, and to which the composition was applied, on planting.—In both cases the manure was applied in the drill, but plentifully. The following crop on both grounds was COTTON—it was superior—the seed was drilled in the old corn, and potatoe rows, opened with a Scooter plough. The following year, the seed that came from the cotton, the year previous, was applied to a second corn crop, which much surpassed the first, indeed was amongst the finest corn crops to be found—Wheat and Rye followed and were superior.

I give this detail to show that the efficacy of leaves, is decided, in their action on plants, as a manure, when decomposed, for in the crops above stated, they were the basis of the manure that was applied, it being perfectly impossible for all the dung, and lime, that was employed for the formation of the compost, to have produced half the effect, when spread over the soil, or used as the compost was applied. PLANTER.

MARYLAND HORTICULTURAL SOCIETY.

☞ In our last report it was stated, that Mrs. *J. Buckler* presented some fine varieties of China Asters. It should have been Mrs. Wm. J. Buckler.

It was *Peter Coombs* that presented the Pears and Squashes attributed to Edward Coombs and Edward Keen in our last report.

Mr. Lawrence Ahern presented two bunches of celery.

Mr. Hugh Birkhead presented a fine specimen of Heath Peach, measuring 12¼ inches in circumference, and weighing 17 ounces.

Mrs. Wm. H. Freeman presented two fine plants of the common and purple Tea Roses, and two varieties of Dahlias.

Mr. Gideon B. Smith presented fifteen varieties of Seedling Dahlias.

MISCELLANEOUS.

Teasels.—There has been a great rise in the price of the teasel or fuller's thistle, and some farmers in Hatfield and Williamsburg have lately received large sums of money for the produce of small quantities of land. Three or four years since, teasels were sold at seventy-five cents; now the manufacturers give from $2 37 to 2 50 per thousand. Two farmers in Williamsbnrg have recently sold teasels to the amount of 1,500 dollars. In Hatfield, a single acre has, in some instances, yielded 100,000 teasels, which have brought over 237 dollars. There are very few acres, however, that do this. Two years are necessary to bring a teasel crop to maturity; the plants require much care and labor, and are liable to be winter killed and to other injuries. After the price fell to sixty-seven or seventy-five cents, the cultivation was relinquished by many, and the present high prices are owing to a great diminution in the quantity raised.

The Hatfield farmers commonly have their dish right side up when it rains.

Coffee—Wine has been the theme of grateful song in every language that is soft enough to flow in numbers; and even that coarse compound, punch, whose cacophonous English name, as if peculiarly suitable to its nature, is naturalized in all modern languages, has been celebrated by bards whose verse gives immortality; we have seen on the cigar stanzas far too poetical and sincere to have been dictated by the mere spirit of puff; and yet, the most delightful of stimulants and corporeal consolations remain unsung. The ode is still unwritten that is to be repeated by grateful millions as descriptive of the virtues of Coffee. Wine confuses the reason and inflames the passions; how many curses have been uttered in the morning by parched tongues in ache-splitting heads on the punch that had been drunk at night; and that cigars do not end in smoke many of our fair readers know, who, long after their extinction, are assailed by their invisible effects; but coffee, as fragrant as it is delicious, stimulates the intellect without disturbing its powers, calms the feelings even while awakening them, leaves on the palate none but the most grateful flavor, and never brings to the mind either shame or repentance—the most healthful of perfumes, the most aromatic of beverages, of stimulants the most innocent, worthy to be served by female hands. Happy Arabia to have given it birth. Surely it was through mysterious anticipation of the benefaction she was to confer upon the world by coffee, that to her wasgiven ages ago among the nations the distinctive epithet of *happy*.

There is a curious tradition about the mode in which the qualities of this precious gift were first discovered. Seyadly, a Mahometan priest, whose name is to this day held in veneration in the East, finding himself often overcome by sleep in the midst of his prayers, ascribed his drowsiness to the lukewarmness of his devotion, and was troubled with pious scruples. The Prophet, according to the legend, touched by his affliction, threw into his way a shepherd, who related to him, that whenever his goats had fed on the berries of a certain shrub, they remained awake, jumping and capering about all night. Seyadly desired to be shown this singular plant: the shepherd pointed out to him a handsome little tree, with a grayish bark, foliage of a bright green, whose delicate branches bore, just between the leaves that grew paired on opposite sides, bunches of little flowers white as the jessamin, mingled with small fruit, some green, some more advanced, of a clear yellow, and others in maturity of the size, shape, and color of small cherries. It was the coffee tree. Seyadly resolved to try upon himself the strange effect of these berries. He took a strong infusion of them, and passed the whole night in a kind of delicious intoxication which took nothing from the freedom and clearness of his mind. He communicated his discovery to his dervises, and in a short time coffee was sought after by Mahometan devotees as a divine gift sent to true believers.

The use of it soon spread over Mahometan countries. European travellers in the East learnt its virtues, and about the middle of the seventeenth century it was introduced into the capitals of Europe. At the beginning of the eighteenth century, Van Horn, the first Dutch Governor of the East Indies, residing at Batavia, obtained several plants, and sent one to Amsterdam.—This bore seed the following year, which being planted, produced several shrubs, one of which, sent to Paris, was successfully reared in the Jandin des Plantes, and was the parent of all the Coffee trees in the French Colonies.

The East where it originated, produces the best: Mocha is still unequalled. The Mahometans are worthy to be thus favored, for they do justice to its native virtues in the artificial preparation of it, and drink it pure. To have the 'magic beverage' in perfection, three things are requisite: first, that the article bought be of fine quality; second, that it be roasted to a turn,—a part of the process which demands skill and attention.—and third, that it be *not* boiled. Both its flavor and strength are carried off by decoction. Boiling water poured at intervals upon it, finely ground and gently pressed upon a strainer, extracts its strength without dissipating its flavor.—*Balto. American.*

Sweet Creatures.—Willis, in his correspondence says, "The women in Constantinople, I am told, almost live on confectionary. They eat incredible quantities. The Sultan's eight hundred wives and women (!!!) employ five hundred cooks and consume two thousand five hundred pounds of sugar daily! It is probably the most expensive item of the seraglio kitchen."

White Rats.—Two of this variety of the rat species were caught a few days ago in Messrs. W. C. Barron & Co's Bakery, in removing a kneading trough, under which they had burrowed. They were exhibited by the men who captured them, in a large wire trap, and excited a great deal of curiosity; for among the hundreds who pressed to see them as they were carried through the street, there was probably not one who had seen the like before. They are very pretty pets; larger than the ordinary grey rat; have pink colored eyes, and long silky hair, like that of the Angola goat. They are apparently less timid than the grey rat. One of the latter was put into their cage, when both immediately set upon it and worried it to death.—*Norfolk Herald.*

Geological Surveys.—The Geological Society of Pennsylvania has employed Mr. S. Clenison to visit and report on the gold region recently discovered in York county, in that state. This gentleman has recently returned from Paris, where he has served a long and faithful apprenticeship in the school of mines. The Legislature of Tennessee has recently appointed Dr. G. Troost to make a similar survey of the state. Professor Ducatel is appointed by the Legislature of Maryland to make a geological and topographical survey of that state. Mr. G. W. Featherstonhaugh is engaged under the authority of the U. States in the geological and mineralogical investigation of the territory of Arkansas. His report is expected to be made to Congress in February next. These various and simultaneous appointments evince a determination to develop the mineral resources of the country in good earnest.—*N. Y. Enq.*

Locked Jaw cured by Exposure to extreme Cold.—Mr. Blanchard, veterinary surgeon of the third [British] dragoons, had a horse attacked with complete locked jaw. It was in the winter season, and the weather was extremely cold and stormy. At night he was turned into the barrack yard; and next morning, found perfectly free from the complaint.

According to a document drawn up with immense labor, by the French government, it appears, that in Russia, one child is educated out of every 367 inhabitants—in Portugal, 1 in 88—in Poland, 1 in 78—in France, 1 in 20—in Austria, 1 in 13—in England, 1 in 11—in Bavaria, 1 in 10—in Prussia, 1 in 6—and in the U. States, 1 in 4.

It is easy to defend the innocent; but who is eloquent enough to defend the guilty?

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BALTIMORE PRODUCE MARKET.

☞ *These Prices are carefully corrected every* MONDAY.

	PER.	FROM	TO
BRANDY, Apple,	gallon.	$0 36	$—
Peach,	"	75	—
BEANS, white field,	bushel.	—	—
BEEF, on the hoof,	100lbs.	4 00	5 00
CORN, yellow,	bushel.	69	—
White,	"	69	—
COTTON, Virginia,	pound.	12	14
North Carolina,	"	12	14
Upland,	"	14	15
FEATHERS,	pound.	35	38
FLAXSEED,	bushel.	1 37	1 50
FLOUR—Best white wheat family,	barrel.	6 50	7 00
Do. do. baker's	"	5 75	6 25
Do. do. Superfine,	"	5 00	5 25
Super Howard street,	"	5 12	5 25
" " wagon price,	"	5 00	5 18
City Mills, extra,	"	5 00	5 25
Do.	"	4 85	4 87
Susquehanna,	"	5 25	—
Rye,	"	—	—
GRASS SEEDS, red Clover,	bushel.	5 00	5 50
Timothy (herds of the north)	"	3 00	3 25
Orchard,	"	3 00	3 50
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 25	—
HAY, in bulk,	ton.	—	17 00
Pressed,	100 lbs	60	65
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
LIME,	bushel.	30	33
MUSTARD SEED, Foreign,	"	4 50	5 00
Domestic,	"	5 00	6 00
OATS,	"	31	35
OIL, linseed,	gallon.	—	92
Castor	"	1 50	1 75
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 00	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	2 81	2 87
Ground,	barrel	1 37	—
PALMA CHRISTA BEAN,	bushel	1 50	—
RAGS,	pound	3	4
RYE,	bushel.	65	67
TOBACCO, crop, common,	100 lbs	3 50	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable for segars,	"	6 00	12 00
" yellow and red,	"	8 00	12 00
" yellow,	"	13 00	17 00
" fine yellow,	"	15 00	25 00
Seconds, as in quality,	"	3 50	5 00
" ground leaf,	"	5 00	9 00
Virginia,	"	4 00	—
Rappahannock,	"	—	—
Kentucky,	"	4 00	9 00
WHEAT, white,	bushel.	1 05	1 12
Red,	"	90	1 00
WHISKEY, 1st pf. in bbls.	gallon.	32	33
" in hhds.	"	62	30½
" wagon price,	"	—	29
WAGON FREIGHTS, to Pittsburgh,	100 lbs	—	1 62
To Wheeling,	"	2 00	—
		washed.	*unwash*
WOOL, Prime & Saxon Fleeces,	pound.	50 *to* 60	24 *to* 26
Full Merino,	"	44 50	22 24
Three fourths Merino,	"	37 44	22 24
One half do	"	33 37	21 22
Common & one fourth Meri.	"	30 33	18 20
Pulled,	"	28 31	18 20

A JACK FOR SALE.

I HAVE the selling of a fine JACK, nine years old, whose mules are excellent. He was imported from Gibraltar four or five years ago, and is now offered for sale for want of use by his present owner.

He is upwards of 12½ hands high, stout and well made. Price $250. Enquire of I. I. HITCHCOCK.

GAMA GRASS SEED

JUST received, and for sale at this Establishment—Price 50 cents per ounce.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	$1 50	$2 50
BACON, hams,	pound.	11	—
Shoulders,	"	—	10
Middlings,	"	—	10
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	12	20
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	4 00	7 00
COWS, new milch,	"	22 00	30 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 62	—
CHOP RYE,	"	1 62	—
EGGS,	dozen.	13	—
FISH, Shad, salted,	barrel.	5 50	6 50
Herrings, salted, No. 1,	"	4 75	—
Mackerel, No. 1, 2 & 3,	"	4 75	6 75
Cod, salted,	cwt.	2 62	3 00
LAMBS, alive,	each.	1 25	2 00
Slaughtered,	quart'r	31	50
LARD,	pound.	8	—
ONIONS,	bushel.	75	—
POULTRY, Fowls,	dozen.	1 75	2 00
Chickens,	"	1 75	2 00
Ducks,	"	2 00	2 25
POTATOES, Irish,	bushel.	40	56
Sweet,	peck.	19	25
VEAL, fore quarters,	pound.	7	—
Hind do.	"	8	—

ADVERTISEMENTS

AGENCY FOR TREES, &c.

THE subscriber respectfully offers his services to his customers and the public generally, as agent for the procurement of Fruit and other Trees. It may not be generally understood or duly considered, that few nurseries contain *all* kinds of trees in equal perfection. One, for instance, is celebrated for its fine apple trees, another for its peaches, and a third for its plums or pears, while scarce any of them can make up a collection of *all kinds* of trees of the best quality. In this respect the subscriber flatters himself that he possesses peculiar advantages. His own nursery is not extensive or forward enough to afford many trees for sale yet, and his acquaintance with nearly all the most eminent nurserymen in this country, and of the peculiar excellencies of their respective establishments enables him to select from them all, probably a better collection of fruit trees than any one of them can furnish. Trees ordered from any particular nursery, or to be selected by me, will be charged at nursery prices and 10 per cent commission added. Orders ought to be forwarded immediately, and all confided to the subscriber's agency shall receive his best attention.

I. I. HITCHCOCK,
Oct. 14. Amer. Farmer Establishment.

FINE GEESE.

FOR sale at this establishment, a GANDER and two GEESE of extraordinary size. They are believed to be a cross of the large Bremen goose upon the grey goose. Their color is grey and white. The person from whom they were procured, assured us that individuals of this breed, have been fattened to weigh as high as 25 pounds. Price $5 for the three. Sept. 16.

A SAXONY RAM FOR SALE.

HE is of last winter's yeaning and represented as a very fine one. His sire cost $1,200, and this son is "worthy of him," and yet will be sold for $100, and perhaps a shade less. Enquire of I. I. HITCHCOCK,
Sep. 30 American Farmer Establishment.

WANTED,

AT the American Farmer Establishment, ORCHARD GRASS SEED, for which the highest price will be paid; also, CLOVER SEED and TIMOTHY SEED will be either bought or sold on commission, by
Sept. 16. I. I. HITCHCOCK.

SEVERAL FINE JACKASSES,

FOR sale at prices from $100 to $1000.—GOOD JENNIES are wanted. Enquire of
I. I. HITCHCOCK,
Oct. 7. American Farmer Establishment.

PUPPIES.

SEVERAL YOUNG POINTERS of the very best blood, will be old enough for sale, early in November. Also several young GREY HOUND slues, from the pair sent from Europe to the president of the U. S., and by him presented to this establishment last fall.

Also one SLUT, one year old, from my grey hound slut, by a very fine imported Pointer. She appears to have the Pointer's nose and the shape and agility of the greyhound—color black. Oct. 7.

MORUS MULTICAULIS.

THE subscriber has on hand a few hundred of this celebrated Tree, unrivalled in the quality of its leaves as food for the silk worm, for which he is ready to receive orders (accompanied by the cash) with *particular* directions for the delivery of the trees on or after the first of Nov. next. Price 50 cents each, $5 per dozen, or $40 per hundred.

The success and ease with which this tree is propagated, the extraordinary quickness of its growth, the superiority of its leaves over *all* others for the silk culture, and its uncommon luxuriance and beauty, altogether recommend it to the favorable notice of *every farmer* as a most valuable acquisition. I. I. HITCHCOCK,
aug. 26. Amer. Farm. Establishment.

AGRICULUTURAL IMPLEMENT MANUFACTORY.

THE SUBSCRIBER respectfully informs his friends and the public, that he has on hand, and intends to keep, a general assortment of his PATENT PLOUGHS; also, an assortment on the principle of his recently PATENTED PLOUGH, which are acknowledged by those who have used them to be the best and the cheapest ploughs now in use. He manufactures HARROWS, CULTIVATORS, CORN-SHELLERS, THRASHING MACHINES, and other articles in his line; which, he trusts he can furnish of as good quality, and at as reasonable prices as they can be furnished at any other establishment in Maryland. He will, from his own Foundry, supply manufacturers with all kinds of Castings of the best quality metal, for Thrashing Machines of various powers; together with other Castings for Agricultural Implements. He will purchase, or receive on account, any quantity of old iron.

CAUTION.

Iron Founders, Manufacturers and others, who deal in or use the article, are hereby notified that the subscriber has recently obtained LETTERS PATENT for an Improvement on the Plough, which improvement consists of a peculiar form of share, which embraces both a share and two points, and is susceptible of a reverse application, and self-sharpening by the reversion of such application. A definite description or knowledge of the improvement may be had on application to the subscriber, or any of his agents. Every infringement on his invention, either by manufacture or sale without authority, will be subject to the rigor of the law.

RICH'D. B. CHENOWETH.

P. S.—At his old stand, near Front and Ploughman-streets, near Baltimore-street Bridge, or at Jno Gildea's old Cheapside. Sep. 2—4t

THE COMPLETE FARMER.

JUST PUBLISHED and for sale at this establishment, price $1, "The Complete Farmer and Rural Economist, containing a Compendious epitome of the most important branches of Agriculture, and Rural Economy. By Thomas G. Fessenden, Editor of the New England Farmer." "Agriculture is the art of arts: without it man must be a savage, and the world a wilderness."
june 24

SEED RYE.

WINTER RYE of an excellent quality, suitable for seed, for sale at 80 cents per bushel, by
I. I. HITCHCOCK,
Sep. 2. American Farmer Establishment